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WO 2004/063222 A3

(54) Title: NOVEL PREADIPOCYTE FACTOR-1-LIKE POLYPEPTIDES

(57) Abstract: The present invention discloses open reading frames (ORFs) in human genome encoding for novel Preadipocyte factor-1-like polypeptides, and reagents related thereto including variants, mutants and fragments of said polypeptides, as well as ligands and antagonists directed against them. The invention provides methods for identifying and making these molecules, for preparing pharmaceutical compositions containing them, and for using them in the diagnosis, prevention and treatment of diseases.

# INTERNATIONAL SEARCH REPORT

	Application No PCT/EP 03/51092
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**A. CLASSIFICATION OF SUBJECT MATTER**  
**IPC 7 C07K14/47**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

**IPC 7 C07K**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**EPO-Internal, Sequence Search**
**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p><b>DATABASE EBI New Preadipocyte factor-1-like polypeptide</b>  26 February 2002 (2002-02-26),  KUO, C. ET AL.: "Human preadipocyte factor-1-like protein fragment #1"  XP002293769</p> <p>Database accession no. AAE13639  the whole document</p> <p>-&amp; WO 01/57233 A (ARTERBURN MATTHEW C ;  BOYLE BRYAN J (US); HYSEQ INC (US); HALEY  DANA A) 9 August 2001 (2001-08-09)  page 3, line 5 – page 7, line 19; claims  1,10; sequences 3,4</p> <p>-----</p> <p style="text-align: center;">-/-</p>	1-6,8-41
X		1-6,8-41

 Further documents are listed in the continuation of box C.

 Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

**26 August 2004**

Date of mailing of the international search report

**24.11.04**

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## INTERNATIONAL SEARCH REPORT

Application No

PCT/EP 03/51092

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE EBI  ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM,  NL; Homo sapiens cDNA clone from prostate  12 July 1999 (1999-07-12),  SOARES, B. AND BONALDO, F.:  XP002293768  Database accession no. AI821058  the whole document</p> <p>-----</p>	13, 15-17,27
X	<p>DATABASE EBI Fusion protein for treating  disease 27 August 2002 (2002-08-27),  ROSEN, C.A. AND HASELTINE, W.A.: "Human  albumin fusion protein #698"  XP002293770  Database accession no. ABG64023  the whole document</p> <p>-----</p>	1-6,8-41
X	<p>DATABASE EBI Human Secreted Polypeptide  30 December 2002 (2002-12-30),  BASINSKI, M.B. ET AL.: "Human LP  Polypeptide, LP230S"  XP002293771  Database accession no. AAE25350  the whole document</p> <p>-----</p>	1-6,8-41
A	<p>HEI SOOK SUL ET AL: "REGULATION OF FAT  SYNTHESIS AND ADIPOSE DIFFERENTIATION"  PROGRESS IN NUCLEIC ACID RESEARCH AND  MOLECULAR BIOLOGY, ACADEMIC PRESS, US,  vol. 60, 1998, pages 317-345, XP009013918  ISSN: 0079-6603  page 332, paragraph 2 - page 336,  paragraph 1</p> <p>-----</p>	1-6,8-41

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/51092

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: 7 because they relate to subject matter not required to be searched by this Authority, namely:  
**Although claims 28, 31, 32 and 35 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.**
2.  Claims Nos.: 7 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
**see FURTHER INFORMATION sheet PCT/ISA/210**
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

**see additional sheet**

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**1-6, 8-41 (all in part)**

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 28, 31, 32 and 35 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

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Continuation of Box I.2

Claims Nos.: 7

Present claim 7 relates to a product defined by reference to a desirable characteristic or property, namely to an antagonist of the polypeptides of the invention. The claim covers all products having this characteristic or property, whereas the application does not provide support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for such a product. In the present case, the claim so lacks support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claim also lacks clarity (Article 6 PCT). An attempt is made to define the product by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has not been carried out for claim 7.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

## INTERNATIONAL SEARCH REPORT

Int'l Application No

PCT/EP 03/51092

Patent document cited in search report		Publication date	Patent family member(s)	Publication date	
WO 0157233	A	09-08-2001	AU 3458201 A CA 2398215 A1 EP 1261736 A2 JP 2003521928 T WO 0157233 A2 AU 2593601 A AU 3117701 A AU 3117801 A AU 3296701 A AU 3296901 A AU 3297101 A AU 3298901 A AU 3300301 A AU 3301701 A AU 3304101 A AU 3304701 A AU 3655301 A CA 2395749 A1 CA 2398251 A1 CA 2398396 A1 CA 2398546 A1 CA 2398548 A1 CA 2398554 A1 EP 1240178 A2 EP 1252333 A2 EP 1254246 A1 EP 1261735 A2 EP 1285084 A1 EP 1276902 A2 JP 2004508804 T JP 2003521903 T JP 2004500078 T JP 2004502405 T JP 2004524001 T WO 0153456 A2 WO 0155332 A2 WO 0155333 A2 WO 0155334 A2 WO 0155442 A2 WO 0155335 A2 WO 0155435 A2 WO 0155336 A2 WO 0155337 A2 WO 0155437 A2 WO 0154477 A2 WO 0155339 A2 US 2004048249 A1 US 2004219521 A1 US 2003124573 A1 US 2003232054 A1	14-08-2001 09-08-2001 04-12-2002 22-07-2003 09-08-2001 31-07-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 07-08-2001 18-09-2002 30-10-2002 06-11-2002 04-12-2002 26-02-2003 22-01-2003 25-03-2004 22-07-2003 08-01-2004 29-01-2004 12-08-2004 26-07-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 02-08-2001 11-03-2004 04-11-2004 03-07-2003 18-12-2003	